WHAT IS CLAIMED IS:

1. A CDMA communication terminal for communicating with an adaptive array antenna communication system having first and second antenna elements, data generating means for generating a data signal for each antenna element, multipliers for obtaining a first weighted signal by multiplying a first weight with the data signal for one antenna element and obtaining a second weighted signal by multiplying a second weight with the data signal for the other antenna element, adders for obtaining a first sum signal by adding the first weighted signal and a first known signal and obtaining a second sum signal by adding the second weighted signal and a second known signal, and transmission means for transmitting the first sum signal from the first antenna element and transmitting the second sum signal from the second antenna element, the the CDMA communication terminal comprising:

reception means for receiving transmission signals transmitted from the first and second antenna elements through plural reception paths; and

phase difference calculating means for calculating phase difference data indicating a phase difference between the first and second known signals according to the plural reception paths as update data for updating the first and second weights.

2. The CDMA communication terminal as in claim 1, wherein the phase difference calculating means calculates the phase difference of the first and second known signals for each reception path, and combines the phase differences for each reception path to determine the phase difference data.

3. The CDMA communication terminal as in claim 1, further comprising:

power comparing means for comparing a received power of the first known signal and a received power of the second known signal according to the plural reception paths of the reception means, and obtaining resulting power comparison data as the update data.

4. The CDMA communication terminal as in claim 3, wherein the power comparing means includes:

power adding means for determining the received power of the first and second known signals for each reception path, determining a first power sum by adding the determined received power of the first known signals for each reception path, and determining a second power sum by adding the determined received power of the second known signals for each reception path; and

comparing means for comparing the first power sum and the second power sum, and obtaining the resulting comparison data as the power comparison data.

5. A mobile station for receiving a code-spread RF signal from first and second antennas of a base station, and calculating and returning phase difference data for the RF signals transmitted from the first and second antennas to vary signal directivity to the base station in order to vary at least directivity of an antenna beam transmitted from the base station, the mobile station comprising:

data demodulation means for demodulating according to the plural reception paths of the RF signals transmitted from the base station;

RAKE synthesis means disposed downstream of the data demodulating means for aligning the signal arrival timing at each of the plural reception paths;

phase difference demodulation means for demodulating the RF signals for the plural reception paths of the RF signals transmitted from the base station, the RF signals being demodulated from the RF signals before synthesis by the RAKE synthesis means;

phase difference calculation means for calculating a phase difference for each reception path from the output of the phase difference demodulation means; and

means for calculating phase difference data among the plural reception paths returned to the base station from the phase differences calculated by the phase difference calculation means.

6. A mobile station for receiving a code-spread RF signal from first and second antennas of a base station, and calculating and returning phase difference data for the RF signals transmitted from the first and second antennas to vary signal directivity to the base station in order to vary the directivity of an antenna beam transmitted from the base station, the mobile station comprising:

a plurality of reception means for demodulation according to demodulation timing for each of the plural reception paths of the RF signals transmitted from the base station;

phase difference calculation means for calculating a phase difference for each of the plural path reception means output from the plural path reception means; and

means for calculating phase difference data among the plural reception paths returned to the base station from the phase differences calculated by the phase difference calculation means.

7. A base station for communication with a mobile station, the base station comprising:

first and second antennas for transmitting a code-spread RF signal from each antenna; and

a receiving antenna for receiving from the mobile station phase difference data for each RF signal transmitted from the first and second antennas in order to adjust directivity of the first and second antennas,

wherein the phase difference data is calculated from RF-signals transmitted through the plural reception paths that are transmission paths of the RF signals, and

wherein directivity of the antennas is controlled based on the phase difference data calculated from the plural reception paths.